

AMENDMENTS TO THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) An image detector for an x-ray device, comprising:
a plurality of photosensors, each including at least two electric contacts on which an electrical signal occurs upon an x-ray being detected,
wherein at least one contact of each of the plurality of the photosensors is arranged on ~~its~~ a rear side, facing away from an image source, and
wherein a material used for the plurality of photosensors is an organic photodiode material,
wherein the plurality of photosensors are arranged on a substrate, and
wherein the at least one rear side contact of the photosensors is directly connected to an electric component via a plated-through hole in the substrate and at least one solder bump.
2. (Original) The image detector as claimed in claim 1, wherein the photosensors form an array in a spatially distributed arrangement.
3. (Cancelled)
4. (Currently Amended) The image detector as claimed in claim-~~3~~ 1, wherein the substrate includes a material which exhibits a relatively low transparency to x-rays.
5. (Currently Amended) The image detector as claimed in claim-~~3~~ 1, wherein a layer, which has a relatively ~~lowest~~ low transparency to x-rays, is arranged on at least one of a front side and a rear side of the substrate.
6. (Currently Amended) The image detector as claimed in claim-~~3~~ 1, wherein electric components and conductor tracks are arranged on the rear side of the substrate, wherein the tracks are connected to the plated-through holes and, via the plated-through holes, to the rear

contacts of the photosensors, and wherein the photosensors are driven by the electric components and electrical signals of the electric components are tapped off.

7. (Currently Amended) The image detector as claimed in claim 6, wherein the electric components on the rear of the substrate also include electrically active components, wherein the signals from the photosensors are at least one of A/D converted and evaluated by the electrically active components.

8. (Currently Amended) The image detector as claimed in claim 1, wherein a contact of each photosensor is arranged on a its-front side of the photosensor, facing the image source, wherein an electrically conductive layer is provided which ~~makes contact jointly with~~ contacts all of the front-side contacts of the photosensors, and wherein the layer serves ~~at the same time as~~ at least one of a fluorescent layer and as a contact layer to a fluorescent layer.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The image detector as claimed in claim 4, wherein a layer, which has a relatively ~~lowest~~ low transparency to x-rays, is arranged on at least one of a front side and a rear side of the substrate.

14. (Original) The image detector as claimed in claim 4, wherein electric components and conductor tracks are arranged on the rear side of the substrate, wherein the tracks are connected to the plated-through holes and, via the plated-through holes, to the rear contacts of the photosensors, and wherein the photosensors are driven by the electric components and electrical signals of the electric components are tapped off.

15. (Original) The image detector as claimed in claim 5, wherein electric components and conductor tracks are arranged on the rear side of the substrate, wherein the tracks are connected to the plated-through holes and, via the plated-through holes, to the rear contacts of the photosensors, and wherein the photosensors are driven by the electric components and electrical signals of the electric components are tapped off.

16. (Cancelled)

17. (Currently Amended) An image detector for an x-ray device, comprising:
a plurality of photosensors, each including at least two electric contacts, adapted to detect an x-ray,
wherein at least one contact of each the photosensors is arranged so as to face away from an image source, and
wherein the photosensors include an organic photodiode material,
wherein the plurality of photosensors are arranged on a substrate, and
wherein the at least one contact of each of the photosensors is directly connected to an electric component via a plated-through hole in the substrate and at least one solder bump.

18. (Original) The image detector as claimed in claim 17, wherein the photosensors form an array in a spatially distributed arrangement.

19. (Cancelled)

20. (Currently Amended) The image detector as claimed in claim ~~19~~ 17, wherein the substrate includes a material which exhibits a relatively low transparency to x-rays.

21. (Currently Amended) An image detector for an x-ray device, comprising:
a plurality of photosensors, each including,
an organic photosensitive layer to receive an x-ray from an image source, at least one electric contact ~~a plurality of electric contacts~~ arranged on a rear of the organic photosensitive layer, to receive electrical signals upon the x-ray being received,

a substrate layer including a material which exhibits a relatively low transparency to x-rays; and
at least one active component, arranged beneath the substrate layer,
wherein the at least one active component is directly connected to the at least one electric contact via a plated-through hole and at least one solder bump.

22. (Previously Presented) The image detector of claim 1, wherein each of the photosensors further includes a fluorescent layer, which, when excited by an x-ray, emits radiation detectable by the organic photodiode material.
23. (Previously Presented) The image detector of claim 17, wherein each of the photosensors further includes a fluorescent layer, which, when excited by an x-ray, emits radiation detectable by the organic photodiode material.
24. (Previously Presented) The image detector of claim 21, wherein each of the photosensors further includes a fluorescent layer which, when excited by an x-ray, emits radiation detectable by the organic photosensitive layer.
25. (New) The image detector of claim 1, wherein the substrate includes an organic material with a filling of a material having a high atomic number serving as a shield against x-rays.